



Docket No.: 466992000221  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Chong-Sheng YUAN

Application No.: 10/043,787

Confirmation No.: 9117

Filed: January 10, 2002

Art Unit: 1652

For: METHODS AND COMPOSITIONS FOR  
ASSAYING HOMOCYSTEINE

Examiner: I. Chowdhury

**DECLARATION OF CHONG-SHENG YUAN**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

I, Chong-Sheng Yuan, declare as follows:

1. I am the inventor of the subject matter specifically claimed in the above-referenced patent application U.S. Ser. No. 10/043,787, and I am familiar with the contents thereof.

2. Enclosed herewith are the following exhibits:

Exhibit A. GenBank sequence listing and revision history for L32836;

Exhibit B. GenBank sequence listing and revision history for M15185;

Exhibit C. GenBank sequence listing and revision history for M61831; and

Exhibit D. GenBank sequence listing and revision history for M61832.

3. Based on the information from [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov), the GenBank entry for L32836 was last modified on July 25, 1995 (*See* Exhibit A); the GenBank entry for M15185 was last modified on October 4, 1994 (*See* Exhibit B); the GenBank entry for M61831 was last modified

on November 1, 1994 (*See Exhibit C*); and the GenBank entry for M61832 was last modified on November 1, 1994 (*See Exhibit D*). The sequences recited in GenBank entries downloaded at the time as indicated in the references submitted herein as Exhibits A-D are the same as the sequences recited in GenBank entries at the priority date (July 6, 1999) of the present application. Thus, the amendatory material of the Amendment submitted herewith consists of the same material incorporated by reference in the present application. No new matter has been added.

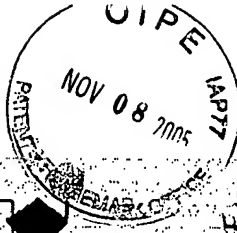
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

11/07/05

Date

Chongsheng Yuan

Chong-Sheng Yuan



Nucleotide

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PubMed Nucleotide Protein Genome Structure PMC Taxonomy OMIM Books

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Range: from  to  ☐ Reverse complemented strand Features: ☐ SNP ☐ CDD ☒

☐ 1: [L32836](#). Reports *Mus musculus* (clo...[gi:904131])

[Links](#)

LOCUS MUSSAHH 2057 bp mRNA linear ROD 24-JUL-1995  
 DEFINITION *Mus musculus* (clone C7/B9) S-adenosyl homocysteine hydrolase (ahcy) mRNA, complete cds.  
 ACCESSION L32836  
 VERSION L32836.1 GI:904131  
 KEYWORDS S-adenosyl-L-homocysteine hydrolase; adenosylhomocysteinase; copper-binding protein; homocysteine hydrolysis.  
 SOURCE *Mus musculus* (house mouse)  
 ORGANISM *Mus musculus*  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi; Muroidea; Muridae; Murinae; Mus.  
 REFERENCE 1 (bases 1 to 2057)  
 AUTHORS Petrovic,N., Zhou,X.-B., Bethin,K.E., Cimato,T. and Ettinger,M.J.  
 TITLE Cloning a cDNA for copper binding protein and its identification as S-Adenosyl Homocysteine Hydrolase  
 JOURNAL Proc. Natl. Acad. Sci. U.S.A. (1994) In press  
 COMMENT On Jul 25, 1995 this sequence version replaced gi:825467.  
 Original source text: *Mus musculus* (strain BALB/c, sub\_species domesticus) (clone library: ML1035b phage library (Clontech)) male adult liver cDNA to mRNA.  
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## ORIGIN

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## Sequence Revision History

PubMed Nucleotide Protein Genome Structure PMC Taxonomy OMIM

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Entrez

### Revision history for L32836

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LocusLink

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Protein reviews on the web

GI	Version	Update Date	Status	I	II
904131	1	Jul 25 1995 12:37 AM	Live		
825467	0	May 23 1995 2:02 PM	Dead		
529443	0	Oct 4 1994 3:45 AM	Dead		
529443	0	Aug 13 1994 12:21 AM	Dead		

Accession L32836 was first seen at NCBI on Aug 13 1994 12:21 AM

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Range: from  to  ☐ Reverse complemented strand Features: ☐ SNP ☐ CDD ☒

**1: M15185**. Reports Rat S-adenosyl-L-...[gi:202803]

[Links](#)

LOCUS RATAHHA 2029 bp mRNA linear ROD 27-APR-1993  
 DEFINITION Rat S-adenosyl-L-homocysteine hydrolase mRNA, complete cds.  
 ACCESSION M15185  
 VERSION M15185.1 GI:202803  
 KEYWORDS adenosylhomocysteinase; hydrolase.  
 SOURCE Rattus sp.  
 ORGANISM Rattus sp.

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;  
 Sciurognathi; Muroidea; Muridae; Murinae; Rattus.

REFERENCE 1 (bases 1 to 2029)

AUTHORS Aksamit, R.R.

JOURNAL Unpublished (1987)

REFERENCE 2 (bases 1 to 2029)

AUTHORS Ogawa, H., Gomi, T., Mueckler, M.M., Fujioka, M., Backlund, P.S. Jr.,  
 Aksamit, R.R., Unson, C.G. and Cantoni, G.L.

TITLE Amino acid sequence of S-adenosyl-L-homocysteine hydrolase from rat  
 liver as derived from the cDNA sequence

JOURNAL Proc. Natl. Acad. Sci. U.S.A. 84 (3), 719-723 (1987)

PUBMED 3027698

COMMENT Original source text: Rat liver, cDNA to mRNA.

Draft entry and computer-readable sequence for [2],[1] kindly  
 provided by R.R.Aksamit 25-JUL-1988.

FEATURES Location/Qualifiers

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ORIGIN 97 bp upstream of AluI site.

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## Sequence Revision History

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GI	Version	Update Date	Status	I	II
202803	1	Oct 4 1994 4:30 AM	Live		
202803	1	Apr 27 1993 8:13 PM	Dead		

Accession M15185 was first seen at NCBI on Apr. 27 1993 8:13 PM

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 Range: from  to  ☐ Reverse complemented strand Features: ☐ SNP ☐ CDD ☒
☐ 1: [M61831](#). Reports Human S-adenosylh...[gi:178276]
[Links](#)

LOCUS HUMAHCY 2211 bp mRNA linear PRI 30-OCT-1994  
 DEFINITION Human S-adenosylhomocysteine hydrolase (AHCY) mRNA, complete cds.  
 ACCESSION M61831  
 VERSION M61831.1 GI:178276  
 KEYWORDS S-adenosylhomocysteine hydrolase.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;  
 Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 2211)  
 AUTHORS Coulter-Karis, D.E. and Hershfield, M.S.  
 TITLE Sequence of full length cDNA for human S-adenosylhomocysteine  
 hydrolase  
 JOURNAL Ann. Hum. Genet. 53 (Pt 2), 169-175 (1989)  
 PUBMED [2596825](#)  
 COMMENT Original source text: Homo sapiens RNA.  
 From EMBL entry HSAHCY; dated 29-MAR-1991.  
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2161 taatgttaaa agaaagcagg aaggtgggta aataaaaatc ttggtgcctg g
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GI	Version	Update Date	Status	I	II
178276	1	<a href="#">Nov 1 1994 12:33 AM</a>	Live		
178276	1	<a href="#">Oct 28 1994 12:49 AM</a>	Dead		
178276	1	<a href="#">Oct 3 1994 1:52 PM</a>	Dead		
178276	1	<a href="#">Apr 27 1993 8:43 AM</a>	Dead		

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Range: from  to  ☐ Reverse complemented strand Features: ☐ SNP ☐ CDD ☒

☐ 1: M61832. Reports Human S-adenosylh...[gi:178278]

[Links](#)

LOCUS HUMAHCY2 2084 bp mRNA linear PRI 30-OCT-1994  
 DEFINITION Human S-adenosylhomocysteine hydrolase (AHCY) mRNA, complete cds.  
 ACCESSION M61832  
 VERSION M61832.1 GI:178278  
 KEYWORDS S-adenosylhomocysteine hydrolase.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;  
 Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 2084)  
 AUTHORS Coulter-Karis, D.E. and Hershfield, M.S.  
 TITLE Sequence of full length cDNA for human S-adenosylhomocysteine  
 hydrolase  
 JOURNAL Ann. Hum. Genet. 53 (Pt 2), 169-175 (1989)  
 PUBMED 2596825  
 COMMENT Original source text: Homo sapiens RNA.  
 From EMBL entry HSAHCY2; dated 29-MAR-1991.  
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#### ORIGIN

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2041 gaataatttg gcctataatg ttaaaagaaa gcagggaaggt gggg
```

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10/043,287

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	M S D K L P Y K V A D I G L A A W G R K A L D I A E N E M P G L M R M R E R Y S	Majority
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1	M A D K L P Y K V A D I G L A A W G R K A L D I A E N E M P G L M R M R E M Y S	M15185
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		+ SAH
	A S K P L K G A R I A G C L H M T V E T A V L I E T L V . L G A E V . W S S C N	SAH
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		+ SAH
	I F S T Q . H A A A A I A K A G I P V . A W K G E T D E E Y L W C I E Q T L . F	SAH
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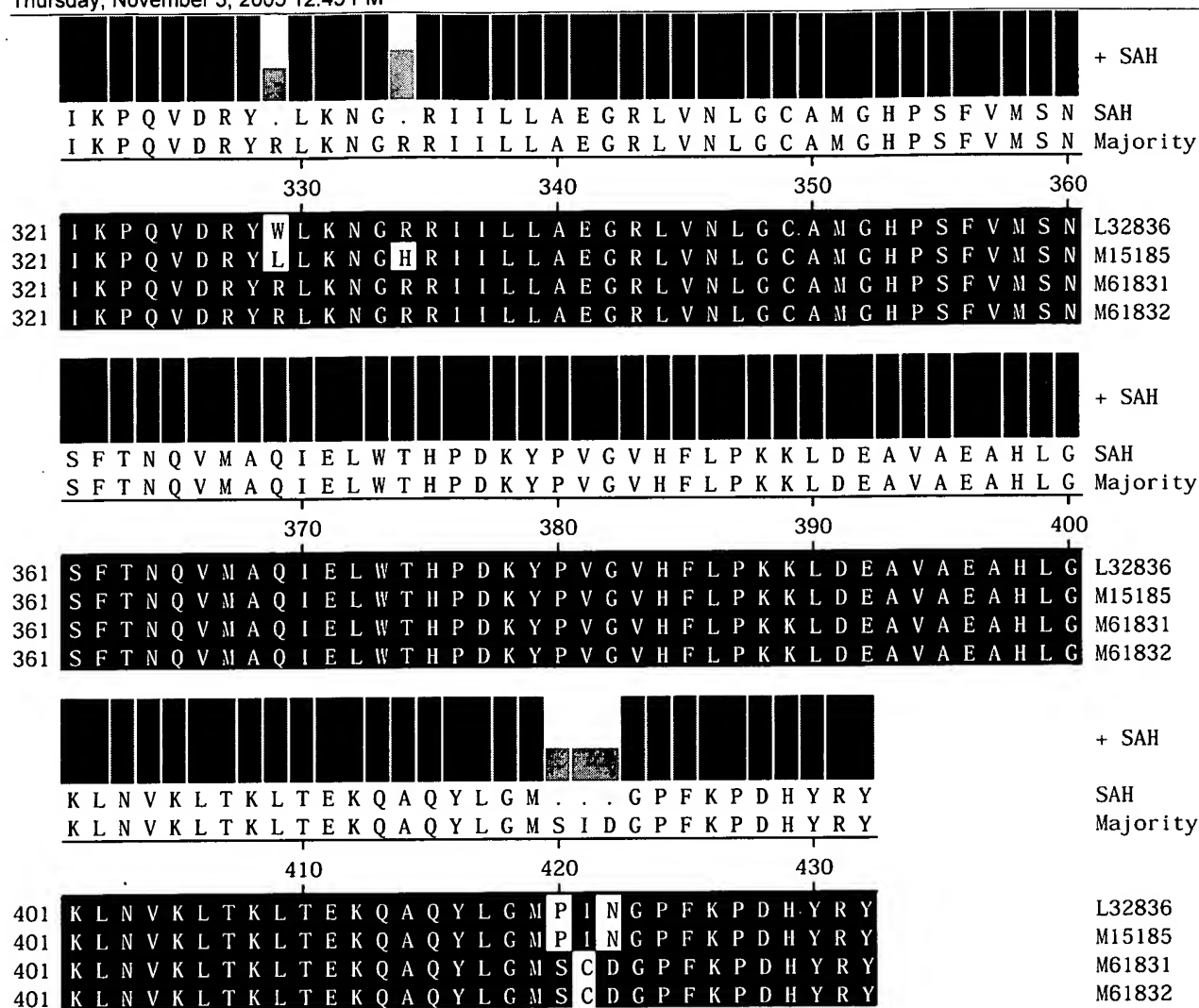


+ SAH  
 SAH  
 Majority

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Consensus 'SAH': When all match the residue of the Consensus show the residue of the Consensus, otherwise show '.'.

Decoration 'Decoration #1': Shade (with solid black) residues that match the Consensus exactly.